



Sierrita Operations  
Environment, Land & Water Department  
6200 W Duval Mine Road  
PO Box 527  
Green Valley, AZ 85622-0527

March 6, 2019

**Via Certified Mail # 7017 1520 0002 5365 8635**  
**Return Receipt Requested**

David Lelsz  
Arizona Department of Environmental Quality  
Water Quality Compliance Section  
1110 West Washington Street  
Phoenix, Arizona 85007-2935

Re:

**Freeport-McMoRan Sierrita Inc., Mitigation Order on Consent Docket No. P-50-06,  
Performance Goal Pumping Rate For 2018**

Dear Dr. Lelsz:

In accordance with our telephone conversation on February 22, 2019 this document provides notification from Freeport-McMoRan Sierrita Inc. (Sierrita) to Arizona Department of Environmental Quality (ADEQ) that the annual amount of sulfate-impacted groundwater pumped from the Interceptor and Mitigation Order well fields during 2018 was below the 2018 performance goal pumping rate as set in the Mitigation Plan For Sulfate With Respect To Drinking Water Supplies, Sierrita 2013.

The Mitigation Plan identifies two sets of pumping rates for the mitigation action Alternative 3; "target" and "performance" goals. The "target" pumping rate is meant to accomplish source control, plume stabilization and plume reduction. The performance pumping rate is meant to accomplish source control and plume stabilization only.

The target and performance pumping rate goals are initial estimates that were made prior to the start of the Mitigation Plan pumping. It is important to note that the performance goal pumping rates are not unique in that different combinations of pumping rates and locations can accomplish the mitigation action objective. Changes in the location and pumping rate of wells due to well inefficiencies and aquifer changes are to be expected. Hence, target and performance goals may change over time as the mitigation action progresses.<sup>1</sup>

The Mitigation Plan performance goal for 2018 was 17,166 acre-feet (AF). The well field withdrew approximately 14,645 AF, or approximately 85.3 percent of the performance goal in 2018. The primary reason for the lower pumping rate was due to the realignment of delivery pipelines during construction of the buttress at the Sierrita Tailings Impoundment. The pipeline realignment

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<sup>1</sup> Mitigation Performance Review For 2017, Mitigation Order on Consent Docket No. P-50-06 – Prepared for Freeport-McMoRan Sierrita Inc. – April 18, 2018.

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February 28, 2019  
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resulted in the shutdown of Interceptor and Mitigation Order well fields for approximately three weeks, from 11/26/2018 -12/17/2018 and 12/17/2018 to 01/09/2019 respectively.

As discussed during our telephone call, Sierrita will submit a technical memorandum that discusses groundwater model simulations undertaken to investigate changes with regards to sulfate plume concentrations or migrations as a result of well field shutdowns. It is expected that this technical memorandum will be included with the upcoming Mitigation Performance Review For 2018, Mitigation Order on Consent Docket No. P-50-06 submittal to ADEQ expected in March 2019 [confirm month].

Please do not hesitate to contact me at (520) 393-2014 if you should have any questions regarding this submittal.

Sincerely,

A handwritten signature in black ink that reads "William S Hart". The signature is written in a cursive style with a long horizontal stroke at the end.

William S Hart  
Senior Environmental Scientist  
Freeport-McMoRan Sierrita Inc.

BH/dmc  
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